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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Peiqi Jiang

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EXAMINER

DYE, ROBERT C

ART UNIT

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1791

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/596,977	<b>Applicant(s)</b> JIANG ET AL.	
	<b>Examiner</b> ROBERT DYE	<b>Art Unit</b> 1791	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 39-81 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39-81 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/05/2007</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 70 are objected to because of the following informalities: Claim 70 is objected to because it recites, "the said main face". Appropriate correction is required.
2. Applicant is advised that should claim 67 be found allowable, claim 73 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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4. Claims 39, 41, 42, 46, 47, 51-54, 59-62, 64, 68, 70, 76, 77, and 80 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7, 10-16, and 18 of U.S. Patent No. 6,562,466 (of record). Although the conflicting claims are not identical, they are not patentably distinct from each other.

5. Claim 1 of '466 claims the process for transferring a coating onto a surface of a lens blank comprising: providing a lens blank having at least one geometrically defined surface wherein the definition of geometrically defined provided in the specification includes a surface that is fined but unpolished; providing a support/mold part having an internal surface bearing a coating and an external surface; depositing on said geometrically defined surface or said coating a premeasured amount of curable glue (also a liquid curable coating composition); moving relative to each other the lens blank and the support; applying a sufficient pressure so that the thickness of a final glue layer is less than 100 micrometers; curing the glue; withdrawing the support/mold part and recovering the lens blank.

6. The instant claims 38 and 76 and claim 1 of the '466 patent are not patentably distinct from each other because the instant claim is merely a broader version of the patented claim. Therefore, the claims are not patentably distinct, since they are effectively anticipated by the patented claims. The examiner notes two interpretations of the claims. In one interpretation "the liquid curable coating" of the instant claims is anticipated by the curable glue claimed by the '466 patent. In another interpretation, the glue of the '466 patent is an additional material employed beyond those materials

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positively found in the instant claims and/or is a component of the coating layer (col 3, line 5-16 of '466).

7. Dependent claims 41, 42, 46, 47, 51-54, 59-62, 64, 68, 70, 77, and 80 are not patently distinct from claims 2-7, 10-16 and 18 of the '466 patent as they cover the same subject matter relating to mold material, surface roughness, coating thickness, coating type (anti-abrasion, tinted), and which face to coat.

### ***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 39-81 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claims 39 and 76 recite "the internal face" in step (iv). There is insufficient antecedent basis for this limitation in the claim. For the purposes of examination, the recitation is understood to be "the internal surface".

11. Further, the preamble of claim 39 refers to an "optical lens blank" whereas the body of the claim refers to an optical article. It is unclear what limiting effect this has on the claims. For example, claims 65, 66, 68, 69 and 71 depend from claim 39 and recite different optical articles including lens blanks, lens molds and a lens.

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12. Claims 39 and 76 are indefinite because the limiting effect of the recitation, "fined but unpolished" is unclear. It is not clear at what degree of roughness/smoothness the instant claims intend to be considered "fined but unpolished".

***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 39-42, 46, 48-50, 55, 57, 64-66, 68-70, and 76 are rejected under 35 U.S.C. 102(b) as being anticipated by Gupta et al. (USP 5,512,371, of record).

15. Regarding claims 39 and 76, Gupta et al. (hereinafter Gupta) teach a process for transferring a coating onto a surface of a lens preform comprising providing a finished or semi finished optical preform having at least one geometrically defined surface (col. 3 lines 25-36, item 11, Figure 1); providing a mold part having an internal surface and an external surface (mold 13); depositing a liquid curable coating composition between mold and preform; moving relative to each other the preform and mold; applying sufficient pressure to spread the liquid curable coating resin; curing the resin; and

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recovering the coated article (col 4, lines 42-49; col 5, lines 28-31, 36-45, 60-64; col 6, 57-60).

16. Regarding claim 40, Gupta teach that the liquid coating composition layer is cured under pressure (col 5, lines 36-45).

17. Regarding claim 41, Gupta teach that the mold part is glass or metal (col 3, lines 11-24) and that the curvature of the surface of the mold is preferably matched to the curvature of the surface of the lens preform (col 4, lines 46-48).

18. Regarding claims 42 and 46, Gupta teach that the mold is made of plastic (col 3, lines 11-14). It is noted that plastic is more flexible than glass or metal. Gupta also teach that the curvature of the surface of the mold is preferably matched to the curvature of the surface of the lens preform (col 4, lines 46-48).

19. Regarding claim 48, Gupta teach the liquid is UV curable (col 5, lines 60-66).

20. Regarding claims 49 and 50, Gupta teach the mold part is UV-transparent plastic (col 3, lines 11-14).

21. Regarding claims 55 and 57, Gupta teach that the preform is made of polycarbonate (col 3, lines 25-38).

22. Regarding claim 64, Gupta teach that the resin provides anti-scratch properties (col 3, lines 1-9).

23. Regarding claim 65 and 70, Gupta teach the main face of the preform may be the back face of the preform (col 4, lines 35-41).

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24. Regarding claims 66 and 68, Gupta teaches that the optical article is a lens (col 3, line 25) and that the lens may be colored or coated with photochromatic materials (col 4, lines 21-25).

25. Regarding claim 69, Gupta teach that the article is a lens preform (col 3, line 25).

26. Claims 39-66, 68-70, 76 and 77 rejected under 35 U.S.C. 102(e) as being anticipated by Jiang et al. (USP 6,562,466, of record).

27. Regarding claims 39 and 76, Jiang et al. (hereinafter Jiang) teach a process for transferring a coating onto a surface of a lens blank comprising: providing a lens blank having at least one geometrically defined surface wherein the definition of geometrically defined provided in the specification includes a surface that is fined but unpolished; providing a support/mold part having an internal surface bearing a coating and an external surface; depositing on said geometrically defined surface or said coating a premeasured amount of curable glue (also a liquid curable coating composition); moving relative to each other the lens bank and the support; applying a sufficient pressure so that the thickness of a final glue layer is less than 100 micrometers; curing the glue; withdrawing the support/mold part and recovering the lens blank (claim 1; col 2, line 47-col 3, line 28).

28. Regarding claim 40, the liquid curable composition is cured under pressure (col 3, lines 42-44).



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29. Regarding claims 41, 42, 49, and 44-47, Jiang teach the use of rigid or flexible mold parts such as polycarbonate with a thickness of 0.3 to 1 mm and that can be in the form of a flexible membrane (col 3, lines 44-46, 58; col 4, lines 11).

30. Regarding claim 43, Jiang teach the flexible part has a shorter radius of curvature than the surface of the blank to be coated (col 4, lines 17-19).

31. Regarding claims 48 and 50, Jiang teach the use of UV-transparent polycarbonate and a UV curable liquid coating glue (col 3, line 58-col 4, line 11; col 6, lines 36-50).

32. Regarding claims 51 and 52, Jiang teach a preferable pressure range of 5 to 20 psi (col 3, lines 47-48).

33. Regarding claims 53-58 and 77, Jiang teach the surface roughness of the optical article is from  $10^{-3}$  to 1 micrometer (col 3, lines 29-32) and that the optical article may be polycarbonate (col 5, lines 1-10).

34. Regarding claims 59-62, Jiang teach the total thickness of the coating to be transferred is preferred to be 10 micrometers or less (col 4, lines 53-55) and that the thickness of the glue is usually 1 to 30 micrometers (col 5, lines 1-3).

35. Regarding claim 63, Jiang disclose the same claimed materials and the same claimed process. As such the refractive index difference between the lens blank and the cured coating are the same.

36. Regarding claims 64 and 66, Jiang disclose employment of anti-abrasive coatings, tinted coatings, and anti-reflective coatings as conventional (col 1, lines 15-22; col 4, lines 45-53).

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37. Regarding claims 65 and 70, Jiang teach that the main face of the lens blank is the back face of the lens blank (col 11, lines 53-57).

38. Regarding claims 68 and 69, Jiang disclose the article as a lens blank (col 2, lines 54-55).

***Claim Rejections - 35 USC § 103***

39. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

40. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

41. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

42. Claims 67 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jiang et al. (USP 6,562,466, of record) as applied to claims 39-66, 68-70, 76 and 77 above, further in view of Degand et al. (USP 6,489,028, of record).

43. Regarding claims 67 and 73, Jiang teach the method of claim 1 as described above and further discloses anti-reflective coatings as conventional but do not explicitly teach applying anti-reflective coatings onto the cured coating. In the same field of endeavor of molding optical articles, Degand et al. disclose that it is known to apply an anti-reflective coating to the cured surface of the lens (col 6, lines 1-6). Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ a known sequence of steps for applying the anti-reflective coating to the surface of the cured lens as taught by Degand et al. in the method of Jiang for the purpose of providing a lens that has excellent abrasion resistance while also having anti-reflective properties (col 5, line 38-col 6, line 9).

44. Claims 71, 72, 78 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jiang (USP 6,562,466, of record) as applied to claims 39 and 77 above, and further in view of Brytsche et al. (USP 5,753,301, of record).

45. Regarding claims 71 and 78, Jiang teach the method of claim 1 as discussed above, but do not explicitly disclose the method is employed to coat a lens mold. However, in the same field of endeavor of coating optical articles, Brytsche et al.

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(hereinafter Brytsche) disclose that methods of coating lens, lens blanks, and lens molds are known to be interchangeable and equivalent (abstract). Thus, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to utilize the method disclosed by Jiang to coat a lens mold since Brytsche disclose that lens molds, lens, and lens blanks may be coated through equivalent means. One having ordinary skill in the art would have been motivated to maximize the applications of Jiang's method as suggested by the disclosure of the art-recognized equivalence of materials.

46. Regarding claim 72, Brytsche teaches that the lens mold to be coated can be made of a number of suitable materials including glass (col 8, lines 30-35).

47. Regarding claim 79, Brytsche teaches that the lens mold to be coated can be made of a number of suitable materials including metal (col 8, lines 30-35), a non-transparent material.

48. Claims 74 and 80 rejected under 35 U.S.C. 103(a) as being unpatentable over Jiang et al. (USP 6,562,466, of record) as applied to claims 39 and 76 above, and further in view of Li et al. (USP 6,565,776, of record).

49. Jiang teach the method of claims 39 and 76 as discussed above but do not teach the mold part is precoated with a release or protective coating. In the same field of endeavor of molding optical articles, Li et al. (hereinafter Li) teach that it is known to provide lens mold parts with a protective coating (abstract). Thus, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to

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provide a protective layer to the mold part disclosed by Jiang as suggested by Li for the purpose of producing a mold part with greater dimensional stability and chemical resistance (abstract).

50. Claims 75 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jiang et al. (USP 6,562,466, of record) as applied to claims 39 and 76 above, and further in view of Keller et al. (USP 6,491, 851, of record).

51. Jiang teach the method of claims 39 and 76 as discussed above but do not teach a mold part having microstructure or a pattern to be duplicated in the lens bank. However, in the same field of endeavor of molding optical articles, Keller et al. (hereinafter Keller) disclose a mold part having a microstructure or a pattern to be duplicated in the lens blank (abstract). Thus, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to employ a mold part with a microstructured surface as disclosed by Keller in the method of Jiang to produce a lens with improved anti-glare properties (abstract).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT DYE whose telephone number is (571)270-7059. The examiner can normally be reached on Monday to Friday 8:00AM to 5:00 PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Del Sole can be reached on (571)272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RCD

/Joseph S. Del Sole/

Supervisory Patent Examiner, Art Unit 1791